

## Learn : How to create Extended Regex ?

- **Syntax:**
  - `grep -E [options] "Pattern" fileName(s)` (Pattern is a search string here)
  - `commandOutput | grep -E [options] "Pattern"`
- **Note:** `grep -E` is same as `egrep`
- **Special Characters or Meta Characters** → `|`, `^`, `$`, `.`, `?`, `+`, `*`, `{ }`, `( )` and `[ ]` and `\`
- **Note:** Use `\` before special character to match special character itself
- `grep -E 'pattern' fileName` : Search may occur in any place of the line
- `grep -E '^pattern' fileName` : Search Must Occur at the beginning of the line
- `grep -E 'pattern$' fileName` : Search Must Occur at the ending of the line
- `grep -E '^pattern$' fileName` : Search Must Occur at the beginning and ending of the line
- `grep -E '^$' fileName` : Match for empty lines

## Learn How to create Regex For Grep...

### ➤ Pattern:

- `'.'` any character except for the new line `'\n'`
- `*` match the preceding item zero or more time
- `?` match the preceding item zero or one time
- `+` match the preceding item one or more time
- `{n}` match the preceding item exactly n times
- `{n,}` match the preceding item n or more times
- `{,m}` match the preceding item maximum m times
- `{n,m}` match the preceding item from n to m times
- `'abc|xyz'` search for the lines which are having **abc** or **xyz**
- `()` grouping or allowing pattern into one item
- `[38]` match for 3 or 8
- `[462]` match for 4 or 6 or 2
- `[0-9]` match for any number
- Note:
  - `[0-9]` or `[[:digit:]]`

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## Learn How to create Regex For Grep...

- **Pattern:**
  - `[ ab ]` match for a or b
  - `[xadq]` match for x or a or d or q
  - `[a-z]` any letter from a to z
  - **Note:**
    - `[a-z]` or `[[:lower:]]`
    - `[A-Z]` or `[[:upper:]]`
  - `[a-zA-Z]` any alphabet (lower or upper)
  - **Note:**
    - `[a-zA-Z]` or `[[:alpha:]]`
  - `[[:alnum:]]` match for alphanumeric

## Learn How to create Regex For Grep...

### ➤ Pattern:

- `[ ab]` match for a or b
- `[^ab]` everything except a and b

### ➤ Notes:

- `[^a-zA-Z]` non-letters ( some symbols and number)
- `[^a-zA-Z0-9]` non-letters (some symbols)

